

Allendale Mill  
494 Woonasquatucket Avenue  
Centerdale  
Providence County  
Rhode Island

HABS No. RI-302

HABS  
RI  
4-CENT  
2-

PHOTOGRAPHS  
WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Buildings Survey  
Office of Archeology and Historic Preservation  
National Park Service  
Department of the Interior  
Washington, D.C. 20240

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Historic American Buildings Survey  
PHOTOCOPY OF 1851 VIEW OF THE ALLENDALE MILL IN WALLING'S  
MAP OF PROVIDENCE COUNTY, RHODE ISLAND.  
From the collection of the Library of Congress.

## ALLENDALE MILL

Location: 494 Woonasquatucket Avenue, Centerdale, Providence County, Rhode Island.  
Geographic Location Code: 38 - 0156 - 007  
Latitude: 41° 51' 00" N Longitude: 71° 28' 50" W

Present Owner: Dixie Yarns, 494 Woonasquatucket Avenue, Centerdale, Rhode Island.

Present Occupant: Dixie Yarns.

Present Use: Textile manufacturing.

Statement of Significance: The Allendale Mill was built in 1822 by Zachariah Allen for the manufacture of woolens. During its existence it has also served as a cotton mill. The building is particularly important as the earliest known example of the "slow-burning" construction technique. Allen used wood beams of large cross-section, thick floor planking and shingles set in mortar, as innovations to increase the fire resistance of the mill structure and roof sheathing.

PART I. HISTORICAL INFORMATION

## A. Physical History:

## 1. Original and subsequent owners:

Zachariah Allen: 1822-November, 1858. Z. Allen filed for bankruptcy and mill assigned to creditors. Allen remained as manager until mill sold in 1860.

Allendale Co. (William D. Ely): April 11, 1860-c. 1908 (?).

Stillwater Worsted Co. (H. A. Kirby): c. 1908-December, 1915.

Lister Family: December, 1915-c. 1933 (?).

Collins & Aikman: c. 1933-c. 1946.

The Allendale Company: c. 1946-1963.

Dixie Yarns: 1963-present.

## 2. Date of erection: 1822.

3. Architect, builder, suppliers etc.: Zachariah Allen.
4. Original plans, construction etc.: The original building is rectangular (37'-6" x 160'-6"), five stories high. The exterior walls are load-bearing stone, random coursing, whitewashed. The interior is the earliest known "slow-burning" construction.
5. Alterations and additions: The original building has been added to on the west, south and east sides, and on the north at the stair tower. There are eleven additions that, together with the 1822 building, constitute the present mill. In addition, there are five outbuildings. The three additions on the east were made in: 1880, 1910 and 1947. The six additions on the south were done in: 1844 (originally an outbuilding), 1864 (originally an outbuilding), 1950 and 1955. The additions on the west and at the stair tower are undated. The commissary store outbuilding was built at the same time as the original mill, 1822.

B. Historical Events and Persons Connected with the Structure:

Zachariah Allen. The beginnings of slow-burning mill construction, and the start of the Manufacturers Mutual Fire Insurance Co. of R. I. (1835). The Manufacturers Mutual eventually grew into one of the largest insurance organizations in the world, as an association of Factory Mutual Insurance Companies.

Early use of clerestory windows at roof which came to be known as the "factory roof."

First use of power loom for manufacturing broadcloth.

First mill to use a rolling process in order to impart a gloss finish to cloth.

C. Sources of Information:

1. Primary and unpublished sources:

Allen, Zachariah, Papers of. Rhode Island Historical Society Library, Providence, R. I.

Greene, Samuel and McCarthy, Joseph. "The Rhode Island Collection" (also known as the Nickerson Architectural Collection). 1940. Providence Public Library, Providence, R. I. (A collection of photographs of R. I. mills and mill villages with a supplementing brief text by S. Greene, Federal Writers Project, WPA.)

2. Secondary and published sources:

Angell, Frank C. Annals of Centerdale in the Town of North Providence, Rhode Island. Its Past and Present, 1636 - 1909. 1909.

Bayles, Richard M. History of Providence County Rhode Island. New York: 1891. (2 Vols.). Vol. II, pp. 187-188.

Bicknell, Thomas W. The History of the State of Rhode Island and Providence Plantations. New York: 1920. Vol. III.

Documents Relative to the Manufactures in the United States. House Document 308, 1832-1833. Vol. I.

Greene, Welcome Arnold. 250 Years of the Providence Plantations. Providence: 1886. p. 255.

Huxtable, Ada Louise. "Allendale Mill - 1822," (Progressive Architecture in America Series) Progressive Architecture. July, 1958.

Providence Journal. June 2, 1935. "Schemes from that Textile Brain of Zachariah Allen."

Providence Sunday Journal. November 15, 1908. "Old Allendale Mill to be Woolen Plant."

\_\_\_\_\_. September 12, 1915. "The Passing of a Rhode Island Mill Village."

\_\_\_\_\_. December 12, 1915. "Lister Family Purchases Allendale Mill Property."

The Allendale Co. Serial No. 46670, Index No. 15781. Factory Mutual Engineering Division, Norwood, Mass. Insurance Survey, dated June 14, 1957.

The Factory Mutuals. Factory Mutual Insurance Co., Providence, R. I.: c. 1935 (?).

PART II. ARCHITECTURAL INFORMATION

A. General Statement:

1. Architectural merit and interest: Built in 1822 as a woolen mill by Zachariah Allen, this building is the earliest known example of "slow-burning" mill construction.

2. Condition of fabric: Good.

B. Description of Exterior:

1. Over-all dimensions: 160'-6" x 37'-6"; eighteen (18) bays; four (4) stories plus full basement; rectangular in shape.
2. Foundations: Stone.
3. Wall construction, finish and color: Load-bearing stone, random coursing, whitewash finish.
4. Structural system, framing: Slow-burning mill construction.
5. Porches, stoops, bulkheads, etc.: None.
6. Chimneys: None.
7. Openings:
  - a. Doorways and doors: Center doorway, stair tower north elevation. Wood frame set in masonry opening, wood panelled doors (one pair).
  - b. Windows and shutters: Wood sash, double hung (number of lights varies from 12/12 to 6/6).
8. Roof:
  - a. Shape, covering: Modified gambrel (shallow gable, almost flat, over clerestory-dormer window units.) Shallow gable is covered with tar and gravel. Steeper pitched roofs are covered with shingles.
  - b. Cornice, eaves: Wood cornice, wide (18"±) projection.
  - c. Dormers, cupolas, towers: Stair tower, center, north elevation. Water closet tower south elevation, eastern portion. Elevator tower and enclosed stairway, northeast corner (interior).

C. Description of Interior:

1. Floor plan: Rectangular, open with center roof of wood columns.
2. Stairways: Main stairway, center stair tower, north elevation. Secondary stairway, enclosed, northeast corner.

3. Flooring: Four inch plank flooring (two layers: one three inches thick, one one inch thick).
4. Wall and ceiling finish: Walls: exposed masonry, white-washed. Ceilings: exposed slow-burning timber construction.
5. Doorways and doors: Wood frames in masonry opening, wood panelled doors.
6. Special decorative features, trim: None.
7. Notable hardware: None.
8. Mechanical equipment: Original cast-iron water wheel and machinery removed about five years ago.

D. Site and Surroundings:

1. General setting and orientation: The mill is located to the south of Allendale Pond on the east bank of the Woonasquatucket River, and west of Woonasquatucket Avenue. The terrain slopes downward toward the north.
2. Outbuildings: Outside of the eleven additions to the original building there are five outbuildings, the most important of which is the commissary store (1822) which is north of the mill (between it and the Woonasquatucket Avenue driveway entrance).

Prepared by Robert M. Vogel and  
Ted Sande  
National Park Service  
August 1968, July 1971

PART III. PROJECT INFORMATION

This building was recorded as part of the New England Textile Mill Survey II; which was sponsored by the Historic American Buildings Survey of the Office of Archeology and Historic Preservation of the National Park Service, and the Smithsonian Institution. The project was assisted by the Merrimack Valley Textile Museum, North Andover, Mass.; the Fall River Historical Society; and the Bristol Community College, Fall River, Mass. It was the second of two summer surveys whose purpose was to record representative examples of the buildings of the New England textile industry.

The field work, historical research and record drawings were done in the summer of 1968 under the direction of Robert M. Vogel (Curator of Mechanical and Civil Engineering, Museum of History and Technology,

Smithsonian Institution), Project Director; Professor Melvin M. Rotsch (Architect, Texas A & M University), Project Supervisor; and David L. Bouse (University of Nebraska), Peter S. Conrad (Yale University), Eric N. DeLony (Ohio State University), and Dennis W. Jacobs (University of Kansas), Student Assistant Architects.

Historic documentation and editing of the project data were done in the summer of 1971 by Ted Sande (Architect, University of Pennsylvania), under the auspices of the Historic American Engineering Record of the Office of Archeology and Historic Preservation of the National Park Service.